

Install 584 lf of 8" Cured-in-Place Liner from MH 5847-205 to MH 5847-002

MH # 5847-205
Approx depth = 11.1 ft

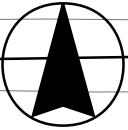
MH # 5847-204
Approx depth = 11.6 ft

MH # 5847-203
Approx depth = 11.8 ft

MH # 5847-202
Approx depth = 10.9 ft

MH # 5847-002
Approx pipe depth = 11.3 ft
Approx MH depth = 19.7 ft

SITE 11



11-2



Aerial View



Television Inspection Master Report

5/24/2007
1:13 PM

US Structure: 5847-205
DS Structure: 5847-204

403 WAVERLY ST
411 WAVERLY ST

Date Insp: 2/25/2007
Dir Televised: Upstream To Downstream

Basin: E04F

Pipe Information

Shape: Round Length Status: Project No.: F-259
Dia/Ht Width: 8 0 Material: VCP Index:
Length: 139.7 Slope: 0.400 Surface:

Inspection Information

Crew: 692 Percent Full: Tape ID: DVD #0252
Weather: Sunny Purpose: TV Existing Line Counter Start:
Surface Cond: Trees & Fences Flow: Normal Flow Counter Stop:

Obs. #	VTR Counter	Distance	Location	Description	Rating	Obsrvd (gpm)	Est. (gpm)	Ratings Struct	Clean	Remain (gpm)
1		2.6	US Manhole	5847-205	1	0.000	0.000	0	0	0.000
2		3.0	Joint	Offset	2	0.000	0.000	0	0	0.000
3		6.0	Lower Right	Debris	1	0.000	0.000	0	0	0.000
4		6.0	Joint	Roots	1	0.002	0.002	1	1	0.002
5		12.0	Invert	Broken Pipe	3	0.010	0.010	60	0	0.010
6		17.7	Joint	Roots	1	0.002	0.002	1	1	0.002
7		20.5	Joint	Roots	2	0.004	0.004	2	4	0.004
8		23.6	Joint	Roots	2	0.004	0.004	2	4	0.004
9		26.7	Joint	Roots	1	0.002	0.002	1	1	0.002
10		35.5		Debris	1	0.000	0.000	0	0	0.000
11		35.9	Joint	Offset	2	0.000	0.000	0	0	0.000
12		41.7	Joint	Roots	2	0.004	0.004	2	4	0.004
13		44.9	Joint	Roots	3	0.008	0.008	5	8	0.008
14		47.8	Joint	Roots	3	0.008	0.008	5	8	0.008
15		51.0	Crown & Invert	Broken Pipe	5	0.060	0.060	100	0	0.060
16		53.1	East	Break-In Conn	4	0.008	0.008	60	0	0.008
403 S WAVERLY BROKEN PIPE AROUND TAP / TAP NEEDS REPLACED AFTER LINER IS INSTALLED										
17		69.3	Crown & Invert	Broken Pipe	5	0.060	0.060	100	0	0.060
18		69.8	West	Wye Service	5	0.000	0.000	400	0	0.000
406 S LEXINGTON / TAP NEEDS REPLACED AFTER LINER IS INSTALLED										
PIPE IS BADLY BUSTED WHERE THE TAPS ARE LOCATED / TAPS TO BE REPLACED IN THE FUTURE "BY OTHERS"										
19		72.0	Joint	Offset	4	0.030	0.030	60	0	0.030
20		78.2	Joint	Offset	3	0.010	0.010	20	0	0.010
21		84.4	Joint	Roots	1	0.002	0.002	1	1	0.002
22		90.2	Joint	Roots	2	0.004	0.004	2	4	0.004
23		93.6	Joint	Roots	1	0.002	0.002	1	1	0.002
24		96.5	Joint	Roots	1	0.002	0.002	1	1	0.002
25		96.8	Crown & invert	Broken Pipe	3	0.010	0.010	60	0	0.010
26		99.5	Joint	Roots	2	0.004	0.004	2	4	0.004
27		99.8	Crown	Broken Pipe	4	0.030	0.030	78	0	0.030
28		101.1	East	Sealed Off Wye	4	0.004	0.004	0	0	0.004
29		102.8	Joint	Roots	2	0.004	0.004	2	4	0.004
30		102.9	Upper Right	Broken Pipe	4	0.030	0.030	78	0	0.030
31		105.2	Joint	Offset	2	0.000	0.000	0	0	0.000
32		123.4	Joint	Roots	1	0.002	0.002	1	1	0.002
33		126.7	Joint	Roots	1	0.002	0.002	1	1	0.002
34		129.7	Joint	Roots	1	0.002	0.002	1	1	0.002
35		133.0	Joint	Offset / & Roots	3	0.010	0.010	20	0	0.010
36		133.6	Upper Right	Broken Pipe	3	0.010	0.010	60	0	0.010
37		137.3	DS Manhole	5847-204	1	0.000	0.000	0	0	0.000

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Television Inspection Master Report

5/24/2007
1:13 PM

US Structure: 5847-204
DS Structure: 5847-203

411 WAVERLY ST
423 WAVERLY ST

Date Insp: 2/26/2007
Dir Televised: Upstream To Downstream

Basin: E04F

Pipe Information

Project No.: F-259 Dia/Ht : 8 Material: VCP Length: 140.6 Slope: 0.397

Inspection Information

Crew: 692 Percent Full: Tape ID: DVD #0252
Weather: Sunny Purpose: TV Existing Line Counter Start:
Surface Cond: Trees & Fences Flow: Normal Flow Counter Stop:

Obs. #	VTR Counter Comment	Distance	Location	Description	Rating	Obsrvd (gpm)	Est. (gpm)	Ratings		
								Struct	Clean	Remain (gpm)
1		3.3	US Manhole	5847-204	1	0.000	0	0	0.000	
2		3.6	Offset Joint / Roots	Broken Pipe	3	0.010	60	0	0.010	
3		6.4	Lower Right	Debris	1	0.000	0	0	0.000	
4		6.4	Joint	Offset	2	0.000	0	0	0.000	
5		8.2	Lower Right	Debris	1	0.000	0	0	0.000	
6		11.0	West	Wye Service	1	0.000	0	0	0.000	
414 S LEXINGTON										
7		17.9	Joint	Offset	2	0.000	0	0	0.000	
8		21.1	Joint	Roots	1	0.002	1	1	0.002	
9		28.6	Lower Right	Debris	1	0.000	0	0	0.000	
10		33.8	East	Wye Service	1	0.000	0	0	0.000	
411 S WAVERLY										
12		48.5	Joint	Roots	1	0.002	1	1	0.002	
13		51.5	Joint	Roots	1	0.002	1	1	0.002	
14		54.6	Joint	Roots	1	0.002	1	1	0.002	
15		56.4	West	Sealed Off Wye	1	0.000	0	0	0.000	
16		69.7	Joint	Roots	1	0.002	1	1	0.002	
17		72.6	Joint	Roots	1	0.002	1	1	0.002	
18		75.6	Joint	Roots	1	0.002	1	1	0.002	
19		78.6	Joint	Roots	1	0.002	1	1	0.002	
20		81.9	Joint	Roots	2	0.004	2	4	0.004	
21		84.9	Joint	Roots	3	0.008	5	8	0.008	
22		87.9	Lower Right	Debris	1	0.000	0	0	0.000	
23		88.1	Joint	Roots	3	0.008	5	8	0.008	
24		90.9	Joint	Roots	2	0.004	2	4	0.004	
25		94.0	Joint	Roots	2	0.004	2	4	0.004	
26		97.0	Joint / Offset	Roots	3	0.008	5	8	0.008	
28		100.3	Joint	Roots	2	0.004	2	4	0.004	
29		100.6	Crown	Broken Pipe	3	0.010	60	0	0.010	
30		100.8	East	Wye Service	4	0.000	60	0	0.000	
419 E WAVERLY ROOTS										
31		103.2	Offset Joint	Broken Pipe / roots	5	0.060	100	0	0.060	
32		106.9	Invert	Broken Pipe / roots	4	0.030	78	0	0.030	
Pipe on west side sticks up slightly, but line through this without a repair										
33		109.3	Upper Right	Broken Pipe	3	0.010	60	0	0.010	
34		112.1	Joint	Offset	2	0.000	0	0	0.000	
35		115.4	West	Break-In Conn	4	0.008	60	0	0.008	
424 S LEXINGTON roots around outside of tap										
36		116.9	Crown	Broken Pipe	3	0.010	60	0	0.010	
37		119.9	Lower Right	Debris	1	0.000	0	0	0.000	
38		134.7	Joint	Roots	3	0.008	5	8	0.008	
39		138.3	DS Manhole	5847-203	1	0.000	0	0	0.000	

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Television Inspection Master Report

5/24/2007
1:13 PM

US Structure: 5847-203
DS Structure: 5847-202

423 WAVERLY ST
437 WAVERLY ST

Date Insp: 2/26/2007
Dir Televised: Upstream To Downstream

Basin: E04F

Pipe Information

Project No.: F-259 Dia/Ht : 8 Material: VCP Length: 174.7

Inspection Information

Crew: 692

Percent Full:

Tape ID:

DVD #0252

Weather: Sunny

Purpose: TV Existing Line

Counter Start:

Surface Cond: Trees & Fences

Flow: Normal Flow

Counter Stop:

Obs. #	VTR Counter Comment	Distance	Location	Description	Rating	Obsrvd (gpm)	Est. (gpm)	Ratings		
								Struct	Clean	Remain (gpm)
1		0.0	US Manhole	5847-203	1	0.000	0	0	0.000	
2		18.0	Upper Right	Broken Pipe	3	0.010	60	0	0.010	
3		21.6	Upper Right	Broken Pipe	2	0.008	44	0	0.008	
4		23.6	Joint	Offset	2	0.000	0	0	0.000	
5		26.6	Joint	Roots	2	0.004	2	4	0.004	
6		32.2	West	Sealed Off Wye	1	0.000	0	0	0.000	
7		33.2	Joint	Roots	1	0.002	1	1	0.002	
8		33.4	East	Wye Service	1	0.000	0	0	0.000	
423 S WAVERLY										
9		44.5	Joint / Offset	Roots	1	0.002	1	1	0.002	
10		48.8	Joint	Roots	3	0.008	5	8	0.008	
11		48.8	Joint	Roots	4	0.010	10	25	0.010	
12		50.9	Joint	Roots	3	0.008	5	8	0.008	
13		87.6	Joint	Roots	1	0.002	1	1	0.002	
14		90.7	Joint	Roots	2	0.004	2	4	0.004	
15		93.8	Joint	Roots	1	0.002	1	1	0.002	
16		97.2	Joint	Roots	2	0.004	2	4	0.004	
17		99.5	Joint	Roots	1	0.002	1	1	0.002	
18		101.3	East	Wye Service	1	0.000	0	0	0.000	
431 S WAVERLY										
19		102.4	Joint	Offset	2	0.000	0	0	0.000	
20		105.3	Joint	Roots	2	0.004	2	4	0.004	
21		108.9	Joint	Roots	4	0.010	10	25	0.010	
22		111.6	Start	Sag	2	0.000	2	0	0.000	
23		111.6	Joint	Roots	2	0.004	2	4	0.004	
24		115.3	Joint	Roots	2	0.004	2	4	0.004	
25		117.6	End	Sag (not bad)	1	0.000	1	0	0.000	
26		117.6	Joint	Roots	2	0.004	2	4	0.004	
27		120.6	Joint / Offset	Roots	4	0.010	10	25	0.010	
28		123.7	Joint	Roots	4	0.010	10	25	0.010	
29		126.5	Joint	Roots	3	0.008	5	8	0.008	
30		130.2	Joint	Roots / Heavy roots	4	0.010	10	25	0.010	
31		132.4	East	Wye Service	5	0.000	400	0	0.000	
FACES 437 S WAVERLY / PACKED WITH ROOTS / ball of roots sticks into the main line / active?										
32		132.9	Joint	Roots	4	0.010	10	25	0.010	
33		136.1	Joint	Roots	4	0.010	10	25	0.010	
34		140.7	Joint	Roots / Heavy roots	3	0.008	5	8	0.008	
35		142.5	West	Break-In Conn	1	0.001	0	0	0.001	
434 S LEXINGTON										
36		147.5	Joint	Roots	1	0.002	1	1	0.002	
37		154.2	Joint	Roots	1	0.002	1	1	0.002	
38		160.5	Joint	Roots	1	0.002	1	1	0.002	
39		168.8	Joint	Offset (fairly bad offset)	3	0.010	20	0	0.010	
40		170.9	DS Manhole	5847-202	1	0.000	0	0	0.000	

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Television Inspection Master Report

5/24/2007
1:13 PM

US Structure: 5847-202
DS Structure: 5847-002

437 WAVERLY ST

Date Insp: 2/28/2007

Basin: E04F

Dir Televised: Upstream To Downstream

Pipe Information

Shape: Round Length Status: VCP Project No.: F-259
Dia/Ht Width: 8 Material: Index:
Length: 131.4 Slope: 0.793 Surface:

Inspection Information

Crew: 692 Percent Full: Tape ID: DVD #0252
Weather: Sunny Purpose: TV Existing Line Counter Start:
Surface Cond: Trees & Fences Flow: Normal Flow Counter Stop:

Obs. #	VTR Counter	Distance	Location	Description	Rating	Obsrvd (gpm)	Est. (gpm)	Ratings Struct	Clean	Remain (gpm)
1		0.1	US Manhole 5847-202		1		0.000	0	0	0.000
			CO-0,H2S-0.LEL-0,02-20.7 / 437 S. Waverly may be tapped inside this manhole							
2		3.0	Offset	Broken Pipe	3		0.010	60	0	0.010
3		8.0	Joint	Offset	2		0.000	0	0	0.000
4		9.7	West	Break-In Conn	3		0.004	2	0	0.004
			442 S LEXINGTON roots around outside of tap							
5		14.3	Joint	Roots	1		0.002	1	1	0.002
6		17.4	Joint	Roots	2		0.004	2	4	0.004
7		35.5	Joint	Offset	2		0.000	0	0	0.000
8		58.7	West	Sealed Off Wye	2		0.002	0	0	0.002
9		60.1	Joint	Offset	2		0.000	0	0	0.000
10		62.2	East	Sealed Off Wye	1		0.000	0	0	0.000
11		67.1	East	Break-In Conn	2		0.002	0	0	0.002
			445 S WAVERLY							
12		89.2		Debris / Stick	3		0.000	0	0	0.000
13		89.5	Crown	Broken Pipe	3		0.010	60	0	0.010
14		93.0	Offset Joint	Broken Pipe	3		0.010	60	0	0.010
15		96.7	Joint	Offset	2		0.000	0	0	0.000
16		102.0	Joint	Offset	2		0.000	0	0	0.000
17		121.5		PVC begins	3		0.000	0	0	0.000
18		130.9	Invert	Outside Drop Hole	1		0.000	0	0	0.000
19		130.9	DS Manhole 5847-002		1		0.000	0	0	0.000
			PVC ENDS AT MANHOLE (the pipe in Kellogg Frontage Road is 27" PVC)							

11-6